

TILING SYSTEM FOR 3D RENDERED GRAPHICS

ABSTRACT

____ A method and an apparatus for shading three-dimensional computer graphic images is provided. A display on which the image is to be viewed is subdivided into a plurality of rectangular areas. For each rectangular area, a list of objects in the image which may be visible is determined, and this list is ~~then~~ used to determine how the rectangular area should be shaded for display. In deriving the list of objects, a determination of maximum and minimum values for each object in ~~X and Y~~ x and y directions is used, and a set of sampling points is determined from these values. If a bounding box surrounding the object covers any of the sampling points ~~they are~~, the object is added to the object list or otherwise rejected. Also provided is a method and an apparatus for testing an edge information for each object against the sample points to determine whether or not the object falls into ~~at the~~ rectangular area in ~~at the~~ bounding box surrounding the object. The step of testing the edge information includes shifting the edge information by a predetermined amount ~~in dependence of~~ based on the orientation of each edge.